

IN THE CLAIMS:

Please cancel Claims 22, 23, 25 and 99 to 104, without prejudice or disclaimer of subject matter, and amend Claims 1 to 21, 24, and 26 to 99, as shown below.

1. (Currently Amended) A method of transmitting data using multicarrier-type a modulation ~~of the multicarrier type~~, comprising the steps operations of  
[[ - ]] ~~extraction~~ extracting a first signal from received data, where said of  
a first signal represents ~~representing the~~ transmission quality ~~on~~ of each sub-carrier  
observed and transmitted by a remote device;

[[ - ]] ~~allocation of~~ allocating transmission data to the sub-carriers in an  
order, wherein the order is based ~~on~~ on an importance ~~significance~~ of the transmission data  
and the first signal ~~representing the transmission quality~~, and

[[ - ]] ~~insertion of~~ inserting a second signal in transmission data, wherein  
said of a second signal represents ~~representing~~ the order in which the transmission data are  
allocated to the sub-carriers based on the importance ~~significance~~ of the transmission data  
and the first ~~signal~~; signal.

2. (Currently Amended) A method of receiving data using [[a]]  
multicarrier-type modulation; ~~of a multicarrier type~~, comprising the steps operations of  
[[ - ]] ~~analysis of~~ analyzing a transmission channel so as to supply a signal  
representing transmission quality of each sub-carriers in a return direction;

[[ -]] ~~extraction from~~ extracting received data of a signal representing an order in which the transmission data are arranged by a transmission device on the sub-carriers; and

[[ -]] ~~formation of~~ forming the received data according to the signal representing the order in which the transmission data are arranged by the transmission device.

B2 cont.  
3. (Currently Amended) A method according to claim 2, wherein the received data are serialized in said forming step ~~formation operation~~ according to the signal representing the order.

4. (Currently Amended) A device for transmitting data to a remote device, ~~comprising~~ comprising:

[[ -]] allocating means for allocating ~~the~~ transmission data ~~to the~~ to sub-carriers in an order, wherein the order is based on on an importance ~~significance~~ of the transmission data ~~and~~ and a transmission quality of the sub-carriers; and

[[ -]] inserting means for inserting in the transmission data of a signal representing the order ~~in which the transmission data are allocated on the sub-carriers based on the significance of the transmission data and the transmission quality of the sub-carriers.~~

5. (Currently Amended) A device according to claim 4, wherein said ~~allocating means~~ allocates the transmission data ~~to the sub-carriers in the~~

order based on the transmission quality of the sub-carriers is observed observed and transmitted by a reception device.

6. (Currently Amended) Device according to Claim 4, wherein it comprises ~~premodulator means including~~ further comprising:

premodulator means, said premodulator means comprising:

[[ - ]] a presenting means ~~of for~~ presenting data to be transmitted according to an importance and a transmission quality observed in each subcarrier in a direction of transmission, to the different inputs of a of the modulator, wherein each input corresponds corresponding to a subcarrier, different data to be transmitted according to a classification of their significance as well as the transmission quality level of each subcarrier in the "outward" direction A → B,

[[ - ]] ~~a means of a first inserting means for~~ inserting in the data to be transmitted a signal representing the transmission quality observed in each subcarrier in the "return" direction B → A, in a direction opposite the direction of transmission, and

[[ - ]] ~~and a second inserting means of for~~ inserting, in the data, a signal representing the an order in which the data to be transmitted there are arranged the different data to be transmitted at the an input of the premodulator,

~~and the device also has:~~ the device further comprising:

[[ - ]] a post-demodulator means, said post-demodulator means comprising including:

[[ - ]] ~~a means of a first extracting means for~~ extracting, from the a signal issuing from the a demodulator, an FCD frequency classification data signal representing

the a transmission quality observed by the remote device B ~~on~~ for each subcarrier in the "outward" direction of transmission A → B, wherein said signal ~~being~~ is generated by the remote ~~device~~ device B,

[[ - ]] ~~and a~~ an analyzing means for analyzing of analysing the a transmission channel so as to supply the a signal representing the transmission quality of the transmission of each subcarrier in the direction opposite the direction of transmission "return" direction B → A,

[[ - ]] a second extracting means of for extracting, from the signal issuing from the demodulator, a signal representing the order in which ~~there were arranged~~ the different data to be transmitted are arranged at the input of the premodulator of the remote device [[B]], and

[[ - ]] ~~and a~~ a serializing means of serialising for serializing the data received as a function of the ~~DP~~ a data position signal representing the an order in which ~~there were arranged the different data to be transmitted~~ are arranged at the input of the premodulator of the remote device B.

7. (Currently Amended) Device according to ~~either one of~~ Claims Claim 6, wherein the premodulator means ~~also includes~~ further comprises a data classification unit and a frequency allocation unit.

8. (Currently Amended) Device according to Claim 7, wherein the ~~unit for classifying data to be transmitted has means adapted to generate~~ presenting

means generates a DS data significance signal representing the importance ~~significance~~ of each data item supplied by the a data source.

9. (Currently Amended) Device according to Claim 7, wherein the said frequency allocation unit further comprises: has

*B2 cat*  
first generating means ~~adapted to generate~~ for generating a data allocation command signal for determining (~~determining~~ the distribution of the data over the different subcarriers); subcarriers from data, wherein the data includes including the data significance signal and frequency classification data signals, and DS and FCD signals A B and

second generating means for generating ~~adapted to generate~~ a signal representing the an order in which ~~there are arranged~~ the different data to be transmitted are arranged at the input of the premodulator.

10. (Currently Amended) Device according to Claim 7, wherein the frequency allocation unit further comprises: ~~has means adapted to perform operations~~ of:

[[ - ]] storing means for storing initialisation, in which the frequency allocation unit ~~reads~~ the information contained in the frequency classification data signal, data significance FCD, DS and storage signals for the frequency allocation unit to read,

[[ - ]] first classification means for classifying and storing classification of the subcarriers by order of interference ~~and storage~~ in the a classification table thus obtained,

[[ - ]] second classification means for classifying and storing classification  
~~of the indices of the data to be transmitted in order of an importance significance, using the~~  
~~information contained in the data significance DS signal, and storage of the result of this~~  
~~classification,~~

[[ - ]] first transmission means for transmitting a ~~of the signal of the~~  
~~relative relating to relative positioning positions of the data with respect to each other, to~~  
the first inserting means ~~unit for insertion in the data to be transmitted,~~

[[ - ]] second transmission means for transmitting a ~~of the data allocation~~  
~~command signal to the a data allocation unit, wherein said data allocation command this~~  
~~DAC signal being in fact is composed of a pair of data, wherein each pair of data~~  
comprises output of the first classification means and the second classification means pairs  
~~(subcarriers, index of the data),~~

[[ - ]] a testing means for testing to check whether the data allocation  
command signal has been completely transmitted

~~all the pairs have been supplied, so that, if the test is negative, the following~~  
~~pair is supplied, and if the test is positive, the initialisation step is returned to.~~

11. (Currently Amended) Device according to Claim 7, wherein  
data allocation unit further comprises a transfer means for transferring ~~has means adapted~~  
~~to transfer each data item supplied by the a data source to the a subcarrier defined denoted~~  
~~by the frequency allocation unit in the a data allocation command signal .~~

12. (Currently Amended) ~~Device for the transmission of data~~  
~~from a device to a remote device via a transmission channel;~~ according to any one of  
Claims 5 to 11, further comprising: wherein it has

a CPU calculation unit,

a temporary data storage unit,

a program storage unit,

a character ~~character~~ entry means,

an image ~~image~~ reproduction means ~~and, and~~

an input-output means ~~allowing inputs and outputs.~~

13. (Currently Amended) ~~Telephone, wherein it has a device~~  
Device according to any one of Claims 5 to 11, wherein said device is a telephone.

14. (Currently Amended) ~~Photographic apparatus, wherein it has~~  
~~a device~~ Device according to any one of Claims 5 to 11, wherein said device is a  
photographic apparatus.

15. (Currently Amended) ~~Printer, wherein it has a device~~ Device  
according to any one of Claims 5 to 11, wherein said device is a printer.

16. (Currently Amended) ~~Scanner, wherein it has a device~~  
Device according to any one of Claims 5 to 11, wherein said device is a scanner.

17. (Currently Amended) ~~Camera, wherein it has a device~~

Device according to any one of Claims 5 to 11, wherein said device is a camera.

18. (Currently Amended) ~~Computer, wherein it has a device~~

Device according to any one of Claims 5 to 11, wherein said device is a computer.

19. (Currently Amended) ~~Facsimile machine, wherein it has a~~

device Device according to any one of Claims 5 to 11, wherein said device is a facsimile machine.

20. (Currently Amended) ~~Television receiver, wherein it has a~~

device Device according to any one of Claims 5 to 11, wherein said device is a television receiver.

21. (Currently Amended) ~~Audio/video player, wherein it has a~~

device Device according to any one of Claims 5 to 11, wherein said device is an audio/video player.

22. (Cancelled) ✓

23. (Cancelled) ✓



22  
24.

(Currently Amended)

Method Process for transmitting data

from a local device, ~~A~~, to a remote device, ~~B~~, via a transmission channel, ~~local device A~~  
~~comprising a data source, two multi-carrier modulators, the first one being adapted to favor~~  
~~the minimum bit error rate and the second to favor the maximum data rate, multiplexers~~  
~~adapted to select a modulator and a radiofrequency interface;~~

wherein it comprises operations involving the method comprising the steps  
of:

[[ - ]] receiving data for transmission, from ~~the a data~~ source ~~a new~~  
succession of data elements for transmission;

[[ - ]] extracting the importance information ~~of importance that is~~  
~~associated therewith and~~ corresponding to the data;

analyzing the importance ~~this~~ information;

[[ - ]] if the data element is considered to be highly significant; inserting a  
« Most Significant Data » ~~item of information~~ flag and applying an algorithm that generates  
an Orthogonal Frequency Division Multiplex (OFDM) ~~OFDM~~ symbol after the an addition  
of redundancy bits ~~that reduce the a peak value of the signal, in a case where the data is~~  
highly important;

[[ - ]] if the data is considered to be less significant; inserting a « Least  
Significant Data » ~~item of information~~ flag and applying an algorithm that generates an  
OFDM symbol by using an inverse fast Fourier transform (IFFT) matrix modified so as to  
reduce ~~the a peak value of the signal, in a case where the data is not highly important~~;

[[ - ]] transmitting the generated OFDM symbol ~~generated~~, via ~~the RF a~~  
radiofrequency interface.

25. (Cancelled)

26. (Currently Amended)

Process Method for receiving data

transmitted by a remote device, ~~A~~, via a transmission channel to a, the reception device, B,  
~~comprising a radiofrequency receiver, two multi-carrier demodulators, the first one being~~  
~~adapted to favor the minimum bit error rate and the second the maximum data rate,~~  
~~multiplexers adapted to select a demodulator, and a unit for extracting the type of~~  
~~demodulator to use;~~

wherein the process comprises operations involving comprising the steps of:

[[ - ]] the radiofrequency receiver receiving a new succession of data  
elements at a radiofrequency receiver;

[[ - ]] extracting the importance information of importance that is  
associated therewith with received data,

and analyzing the importance information ~~this information;~~

[[ - ]] generating a control signal representative of the a type of  
demodulation to be ~~applied;~~ applied, [[ - ]] wherein if the data ~~element~~ is considered to be  
highly significant, ~~applying a demodulation favoring a minimum bit error rate;~~ is applied,  
and wherein [[ - ]] if the data is considered to be less significant, ~~applying a demodulation~~  
favoring a maximum data rate is applied; and

[[ - ]] sending demodulated data to the a destination.

24  
27.

(Currently Amended)

Device, ~~A~~, for transmitting data to a

remote device, ~~B~~, via a transmission channel, ~~with device A comprising a data source and a radiofrequency interface;~~

a data source;

a radiofrequency interface;

wherein the device according to the invention also comprises two multi-carrier demodulators, wherein a first multi-carrier demodulator favors a minimum bit error rate, and wherein a second multi-carrier demodulator favors a maximum bit rate; ~~the first one being adapted to favor the minimum bit error rate and the second to favor the maximum bit rate, and~~

a plurality of multiplexers for selecting adapted to select a modulator, and

an insertion unit ~~responsible for inserting into the data an item of information representative of~~ corresponding to a chosen the modulator, wherein a modulator is chosen according to an importance of a criterion of significance of the data received from the data source, and wherein the importance of data received from the data source also affects operation of said plurality of ~~the said criterion further commanding the~~ multiplexers.

25  
28.

(Currently Amended)

Device according to claim 24, wherein

said insertion unit ~~the unit for inserting the item of information representative of the type of modulator chosen uses the prefix and the suffix inserted~~ inserts an OFDM symbol prefix and a suffix into the data for transmission ~~disposed in the form of OFDM symbols by the~~ module ensuring synchronization of the a receiver.

26  
29. (Currently Amended) Device for transmitting data according  
to one one of claims 27 to 28, further comprising: wherein it comprises

a computing unit CPU,  
a unit for temporarily storing data,  
a program storage unit,  
a character acquisition means,  
image restoring means, and  
an input/output means permitting inputs/outputs.

BA cont.  
27  
30. (Currently Amended) Device, ~~B~~, for receiving data  
transmitted by a remote device, ~~A~~, via a transmission channel, comprising: with reception  
device B comprising

a radiofrequency receiver;  
two multi-carrier demodulators, wherein a first multi-carrier demodulator  
favors a the first one being adapted to favor the minimum bit error rate and wherein a  
second multi-carrier demodulator favors a the second the maximum data rate,  
a plurality of multiplexers adapted to select for selecting a demodulator, and  
[[a]]an extraction unit for extracting control data, such as a type of  
demodulator to use, (type of demodulator to be used) and for generating a signal to  
command the said plurality of multiplexers.

27  
31. (Currently Amended) Device for receiving data according to  
claim 30, further comprising: wherein it comprises

a computing unit CPU,

a unit for temporarily storing data,

a program storage unit,

a character acquisition means,

an image restoring means, and

an input/output means permitting inputs/outputs.

29  
32.

(Currently Amended)

24 28  
~~Telephone~~, wherein it comprises a

29  
device Device according to any one of claims 27 to 31, wherein said device is a telephone.

30  
33.

(Currently Amended)

24 28  
~~Photographic apparatus~~, wherein it

30  
comprises a device Device according to any one of claims 27 to 31, wherein said device is  
a photographic apparatus.

31  
34.

(Currently Amended)

24 28  
~~Printer~~, wherein it comprises a device

31  
Device according to any one of claims 27 to 31, wherein said device is a printer.

32  
35.

(Currently Amended)

24 28  
~~Scanner~~, wherein it comprises a device

32  
Device according to any one of claims 27 to 31, wherein said device is a scanner.

33  
36.

(Currently Amended)

24 28  
~~Shooting camera~~, wherein it comprises

33  
a device Device according to any one of claims 27 to 31, wherein said device is a camera.

34  
37. (Currently Amended) Computer, wherein it comprises a  
device Device according to any one of claims <sup>24</sup>27 to <sup>28</sup>31, wherein said device is a computer.

35  
38. (Currently Amended) Facsimile device, wherein it comprises  
a device Device according to any one of claims <sup>24</sup>27 to <sup>28</sup>31, wherein said device is a facsimile  
machine.

32  
39. (Currently Amended) Television receiver, wherein it  
comprises a device Device according to any one of claims <sup>24</sup>27 to <sup>28</sup>31, wherein said device is  
a television receiver.

37  
40. (Currently Amended) Audio/video reader, wherein it  
comprises a device Device according to any one of claims <sup>24</sup>27 to <sup>28</sup>31, wherein said device is  
an audio/video reader.

36  
41. (Currently Amended) Method of managing information  
transmissions by radio between a base station and at least one peripheral station;  
communicating information with it by the transmission of carriers modulated by said  
information, said method including comprising the steps of: a step of  
allocating a number of carriers and a modulation to at least one radio  
communication channel allocated to the transmission of information between said the base  
station and the said at least one peripheral station, and

a ~~step of~~ determining a number of carriers and a modulation ~~adapted~~ in response to a required service quality, in terms of transmission error rate and transmission rate, for a given transmission of information between ~~said the~~ base station and ~~said the~~ at least one peripheral station, wherein the ~~adapted~~ number of carriers and the modulation ~~differing~~ differ according to ~~the~~ required service qualities.

39  
42.

(Currently Amended)

Method according to Claim ~~41~~,<sup>38</sup>

BB Cont.  
wherein the required service qualities are ~~also~~ expressed in terms of transmission error rate threshold and variation in transmission rate acceptable for ~~said given an~~ information transmission.

40  
43.

(Currently Amended)

Method according to Claim ~~41~~ or ~~42~~,<sup>38 39</sup>

wherein the step of determining a number of carriers and a modulation is performed during an information transmission between the base station and the at least one peripheral station.

41  
44.

(Currently Amended)

Method according to Claim ~~41~~ or ~~43~~,<sup>38 40</sup>

wherein the step of determining a number of carriers and a modulation is performed between two information transmissions between the base stations and the at least one peripheral station.

44  
45.

(Currently Amended)

Method according to Claim ~~41~~,<sup>38</sup>

~~wherein it includes~~ further comprising a step of receiving at least one measurement of a the

transmission error rate on ~~the~~ radio communication channel allocated to ~~the~~ transmission of information between the base station and the at least one peripheral station.

43  
46.

(Currently Amended)

42  
Method according to Claim 45, further

comprising the steps of: ~~wherein after the step of receiving said at least one measurement,~~  
~~said method includes a step of~~

analyzing said at least one measurement of the transmission error rate and

comparing the result of ~~this analysis~~ the analyzing step with the required

service quality in terms of ~~transmission rate and transmission error rate.~~

44  
47.

(Currently Amended)

43  
Method according to Claim 46,

~~wherein it includes~~ further comprising a step of determining a number of carriers and a modulation ~~which are adapted if the result of the comparing step indicates that this analysis~~  
~~does not meet the required service quality~~ has not been met ~~for said transmission.~~

45  
48.

(Currently Amended)

38  
Method according to Claim 41,

~~wherein it includes~~ further including a step of determining a number of carriers to be allocated ~~which is~~ different from a number of carriers ~~that which was~~ previously allocated to said at least one communication channel between the base station and the at last one peripheral station.

46  
49.

(Currently Amended)

45  
Method according to Claim 48,

wherein the number of carriers to be allocated to said at least one communication channel



between the base station and the at least one peripheral station is greater than a number of carriers that was allocated previously ~~to this communication channel~~.

47  
50.

(Currently Amended)

45  
Method according to Claim 48,

wherein the number of carriers to be allocated to said at least one communication channel between the base station and the at least one peripheral station is less than a number of carriers that was ~~the one~~ allocated previously ~~to this communication channel~~.

48  
51.

(Currently Amended)

46  
Method according to Claim 49;

wherein it includes, ~~on the one hand,~~ further comprising the steps of: a step of

determining a number of carriers to be allocated to a first communication channel between the base station and a first peripheral station which is greater than a number of carriers ~~that~~ which was previously allocated to this first communication channel, and, ~~on the other hand,~~

~~a step of~~ determining a number of carriers to be allocated to a second communication channel between the base station and a second peripheral station which is less than ~~that~~ a number of carriers which was previously allocated to this second communication channel, in response to service qualities required respectively for the transmission of information on ~~these~~ communication channels in terms of transmission error rate and transmission rate.

49  
52.

(Currently Amended)

38  
Method according to Claim 41,

wherein said method ~~also~~ further includes a step of determining a modulation to be

allocated to said at least one communication channel between the base station and the at least one peripheral station which is different from ~~that~~ a modulation previously allocated.

50  
53.

(Currently Amended)

Method according to Claims <sup>38</sup>41,

wherein ~~the~~ a transmission by modulated carriers uses a technique of modulation by Orthogonal Frequency Division Multiplexing (OFDM) ~~orthogonal frequency division multiplexing OFDM~~.

B2 cont

51  
54.

(Currently Amended)

Method of sending information over a

radio communication channel including the steps of

allocating a number of carriers and a modulation to ~~said~~ information for transmitting ~~these~~ over ~~said~~ a radio communication channel,

sending ~~said~~ the information in ~~the form of~~ carriers modulated by the ~~said~~ information, and

reconfiguring the number of carriers and the modulation allocated to the information as a function of a required service qualities ~~quality~~ in terms of transmission error rate and transmission rate for a given information transmission, wherein the number of carriers and the modulation ~~reconfigured-differing~~ differ according to the required service qualities.

52  
55.

(Currently Amended)

Method according to Claim <sup>51</sup>54,

wherein the required service qualities are also expressed in terms of transmission error rate

threshold and variation in the transmission rate which are acceptable for said given information for transmission.

51 52 53  
56. (Currently Amended) Method according to any one of Claims 54 or 55, wherein the reconfiguring step of ~~reconfiguring the number of carriers and the~~ modulation is performed during an information transmission.

51 52 53  
57. (Currently Amended) Method according to any one of Claims 54 or 55, wherein the reconfiguring step of ~~reconfiguring the number of carriers and the~~ modulation is performed between two information transmissions.

51 52 53  
58. (Currently Amended) Method according to Claim 54, wherein, prior to the step of ~~reconfiguring the number of carriers and the~~ modulation, said method includes further including a step for of sending a request to allocate a service quality in terms of transmission rate and transmission error rate for a given an information transmission.

51 52 53  
59. (Currently Amended) Method according to Claim 54, wherein ~~the~~ a number of carriers reconfigured is different from ~~the~~ a number of carriers previously allocated.

57  
60.

(Currently Amended)

Method according to Claim <sup>56</sup>~~59~~,

wherein ~~the~~ a number of carriers reconfigured is greater than ~~the~~ a number of carriers previously allocated.

58  
61.

(Currently Amended)

Method according to Claim <sup>56</sup>~~59~~,

wherein ~~the~~ a number of carriers reconfigured is less than ~~the~~ a number of carriers previously allocated.

59  
62.

(Currently Amended)

Method according to Claim <sup>51</sup>~~54~~,

wherein ~~the reconfigured~~ a modulation reconfigured is different from ~~that~~ a modulation previously allocated.

60  
63.

(Currently Amended)

Method according to Claim <sup>51</sup>~~54~~,

wherein the sending step ~~transmission by modulated carriers~~ uses ~~a technique of~~ modulation by Orthogonal Frequency Division Multiplexing ~~orthogonal frequency~~ multiplexing.

61  
64.

(Currently Amended)

Method of receiving information

coming from a radio communication channel, comprising the steps of: ~~including a step of~~ receiving ~~said~~ information sent in the form of carriers modulated by ~~said~~ information,  
~~and a step of~~ selecting the carriers and modulation allocated to said information, and

~~a step of reconfiguring the a~~ number of carriers and the modulation ~~to be~~  
~~selected~~ according to a required service ~~quality~~ qualities in terms of transmission error rate  
and transmission rate for ~~a given an~~ information transmission, the number of carriers and  
the modulation reconfigured differing according to the required service qualities.

<sup>62</sup>  
~~65.~~

(Currently Amended)

Method according to Claim <sup>61</sup>~~64~~,

wherein the required service qualities are ~~also~~ expressed in terms of transmission error rate  
threshold and variation in the transmission rate which are acceptable for said ~~given~~  
information transmission.

<sup>63</sup>  
~~66.~~  
<sup>61</sup> <sup>62</sup>

(Currently Amended)

Method according to any one of

Claims Claim ~~64~~ or ~~65~~, wherein the reconfiguring step ~~of reconfiguring the number of~~  
~~carriers and the modulation~~ is performed during an information transmission.

<sup>64</sup>  
~~67.~~  
<sup>61</sup> <sup>62</sup>

(Currently Amended)

Method according to any one of

Claims Claim ~~64~~ or ~~65~~, wherein the reconfiguring step ~~of reconfiguring the number of~~  
~~carriers and the modulation~~ is performed between two information transmissions.

<sup>65</sup>  
~~68.~~

(Currently Amended)

Method according to Claim <sup>61</sup>~~64~~,

wherein said method includes further comprising a step of ~~carrying out at least one~~  
~~measurement of~~ measuring the transmission error rate on the radio communication channel  
allocated to ~~the an~~ information transmission ~~in question~~.

<sup>64</sup>  
~~69.~~

(Currently Amended)

Method according to Claim <sup>61</sup>  
~~64~~,

wherein the number of carriers which are reconfigured is different from ~~the~~ a number of carriers ~~previously~~ allocated.

<sup>61</sup>  
~~70.~~

(Currently Amended)

Method according to Claim <sup>64</sup>  
~~69~~,

wherein the number of carriers which are reconfigured is greater than ~~the~~ a number of carriers ~~previously~~ allocated.

BB Cont.

<sup>64</sup>  
~~71.~~

(Currently Amended)

Method according to Claim <sup>64</sup>  
~~69~~,

wherein the number of carriers which are reconfigured is less than ~~the~~ a number of carriers ~~previously~~ allocated.

<sup>69</sup>  
~~72.~~

(Currently Amended)

Method according to Claim <sup>61</sup>  
~~64~~,

wherein the ~~reconfigured~~ modulation is reconfigured different from the modulation that ~~previously~~ allocated.

<sup>70</sup>  
~~73.~~

(Currently Amended)

Method according to Claim <sup>61</sup>  
~~64~~,

wherein receiving step receives the transmission by ~~modulated~~ carriers uses a technique of ~~modulation-~~ modulated by Orthogonal Frequency Division Multiplexing (OFDM) orthogonal frequency multiplexing.

<sup>71</sup>  
~~74.~~

(Currently Amended)

Device for managing the information

transmissions by radio between a base station and at least one peripheral station

communicating information with it by transmitting carriers modulated by said information,  
said device comprising: ~~having~~

allocating means ~~of~~ for allocating a number of carriers and a modulation to  
at least one radio communication channel allocated to ~~a~~ the transmission of information  
between said the base station and said the at least one peripheral station, and

determining means ~~for~~ of determining a number of carriers and a  
modulation ~~adapted~~ in response to required service qualities, in terms of transmission error  
rate and transmission rate, for a given information transmission between said the base  
station and said the at least one peripheral station, the number of carriers and the  
modulation ~~adapted~~ differing according to the required service qualities.

75. <sup>77</sup> (Currently Amended) Device according to Claim <sup>71</sup> 74,

wherein the required service qualities are also expressed in terms of transmission error rate  
threshold and variation in ~~the~~ a transmission rate which are acceptable for said given  
information transmission.

<sup>73</sup> 76. <sup>71</sup> (Currently Amended) Device according to any one of Claims  
Claim <sup>72</sup> 74 or <sup>75</sup> 75, further comprising receiving means for ~~wherein it has means of~~ receiving  
at least one measurement of ~~the~~ transmission error rate.

<sup>74</sup> 77. <sup>73</sup> (Currently Amended) Device according to Claim <sup>76</sup> 76, further  
comprising:

~~wherein it has means of analyzing means for analyzing said the~~ at least one measurement of ~~the~~ transmission error rate and

comparing means for comparing the output of the analyzing means result of  
~~this analysis with the required service qualities quality in terms of transmission rate and~~  
~~transmission error rate.~~

<sup>75</sup>  
78. (Currently Amended) Device according to Claim <sup>71</sup>74, further

comprising determining means for ~~wherein said device has means of~~ determining a number of carriers to be allocated ~~which is different from that~~ a number of carriers previously allocated to the said at least one communication channel between the base station and the at least one peripheral station.

<sup>76</sup>  
<sup>75</sup>  
79. (Currently Amended) Device according to Claim <sup>75</sup>78,

wherein the number of carriers to be allocated to the said at least one communication channel between the base station and the at least one peripheral station is greater than the number of carriers that allocated previously to this the communication channel.

<sup>77</sup>  
80. (Currently Amended) Device according to Claim <sup>75</sup>78,

wherein the number of carriers allocated to said at least one communication channel between the base station and the at least one peripheral station is less than the number of carriers that allocated previously to the this communication channel.



76  
81.

(Currently Amended)

77  
Device according to Claim 80,

wherein it has, on the one hand, further comprising:

first determining means for means of determining a number of carriers to be allocated to a first communication channel between the base station and a first peripheral station which is greater than that previously allocated to ~~this~~ the first communication channel, and, ~~on the other hand,~~

second determining means for means of determining a number of carriers to be allocated to a second communication channel between the base station and a second peripheral station which is less than that previously allocated to the second communication channel, in response to service qualities required respectively for the transmission of information over ~~this~~ the communication channel in terms of transmission error rate and transmission rate.

78  
82.

(Currently Amended)

79  
Device according to Claim 74,

wherein it also has further comprising determining means for means of determining a modulation to be allocated to said at least one communication channel between the base station and the at least one peripheral station which is different from ~~that~~ a modulation allocated previously.

80  
83.

(Currently Amended)

81  
Device according to Claim 74,

wherein the transmission by modulated carriers ~~uses~~ using a technique of modulation by known as Orthogonal Frequency Divisional Multiplexing (OFDM) ~~orthogonal frequency~~ multiplexing.

81  
84.

(Currently Amended)

Device for sending information over a

radio communication channel, comprising: having

allocating means for means of allocating a number of carriers and a modulation to ~~said~~ information for transmitting it over ~~said~~ the radio communication channel,

sending means for means of sending said information in the form of carriers modulated by said information, and

reconfiguring means for means of reconfiguring the number of carriers and the modulation allocated to the information according to [[a]] required service qualities quality, in terms of transmission error rate and transmission rate for a ~~given~~ information transmission, the number of carriers and the modulation reconfigured differing according to the required service qualities.

88  
85.

(Currently Amended)

Device according to Claim 84,

wherein the required service qualities are ~~also~~ expressed in terms of transmission error rate threshold and variation in ~~the~~ a transmission rate which are acceptable for an ~~said-given~~ information transmission.

83  
86.

(Currently Amended)

Device according to any one of Claims

Claim 84 or 85, wherein the number of carriers reconfigured is different from ~~the~~ a number of carriers previously allocated.

84  
87.

(Currently Amended)

83  
Device according to Claim 86,

wherein the number of carriers reconfigured is greater than a number of carriers that previously allocated.

85  
88.

(Currently Amended)

83  
Device according to Claim 86,

wherein the number of carriers reconfigured is less than ~~that~~ a number of carriers previously allocated.

84  
89.

(Currently Amended)

81  
Device according to Claim 84,

wherein the ~~reconfigured~~ modulation reconfigured is different from ~~that~~ a modulation previously allocated.

87  
90.

(Currently Amended)

81  
Device according to Claim 84,

wherein the information transmission ~~by modulated carriers~~ uses a technique of Orthogonal Frequency Division Multipleing (OFDM) ~~modulation by orthogonal frequency~~ multiplexing.

88  
91.

(Currently Amended)

Device for receiving information

coming from a radio communication channel, having comprising:

receiving means for ~~means of~~ receiving ~~said~~ information sent in the form of carriers modulated by ~~said~~ the information,

selecting means for ~~means of~~ selecting the carriers and the modulation allocated ~~to said~~ for the information, and

reconfiguring means for means of reconfiguring the number of carriers and the modulation to be selected as a function of a required service qualities ~~quality~~, in terms of transmission error rate and transmission rate, for ~~a given~~ an information transmission, the number of carriers and the modulation reconfigured differing according to the required service qualities.

89

92.

(Currently Amended)

88  
Device according to Claim 91,

82 Cont.  
wherein the required service qualities are also expressed in terms of transmission error rate threshold and variation in ~~the~~ transmission rate which are acceptable for said given information transmission.

90

88 89  
93.

(Currently Amended)

Device according to any one of Claims

Claim 91 or 92, wherein it has further comprising measuring means for means of measuring the transmission error rate on ~~the radio~~ a communication channel allocated to the information transmission.

91

94.

(Currently Amended)

88  
Device according to Claim 91,

wherein the number of carriers reconfigured is different from a number of carriers that ~~which was~~ previously allocated.

92

95.

(Currently Amended)

91  
Device according to Claim 94,

wherein the number of carriers reconfigured is greater than a number of carriers that previously allocated.

93  
96.

(Currently Amended)

91  
Device according to Claim 94,

wherein the number of carriers reconfigured is less than ~~that~~ a number of carriers previously allocated.

94  
97.

(Currently Amended)

98  
Device according to Claim 91,

wherein the ~~reconfigured~~ modulation when reconfigured is different from a modulation that previously allocated.

95  
98.

(Currently Amended)

Device according to any one of Claims

50 94  
53 to 97, wherein the transmission by modulated carriers uses a technique of modulation

known as Orthogonal Frequency Division Multiplexing by orthogonal frequency  
multiplexing.



99. to 104 (Cancelled) ✓